Value's jubilee

May 2022

Research Signals

As admirers across Britain and around the world awaited Queen Elizabeth's Platinum Jubilee celebrations, equity investors reveled in value factors' good cheers throughout the month of May (Table 1). However, markets are still trying to recover from the built-up pressures that have reigned in 2022 including supply chain issues, elevated inflation, the war in Ukraine and the recent downturn in China from renewed COVID restrictions.

- US: Robust double-digit spreads were recorded by value measures including Forward 12-M EPS-to-Enterprise Value
- Developed Europe: Price Momentum measures moved to the opposite end of the performance spectrum, with Industry-adjusted 12-month Relative Price Strength the weakest performing factor last month
- Developed Pacific: In Japan, investors rewarded both value and momentum measures, as represented by Industry Relative Leading 4-QTRs EPS to Price and Rational Decay Alpha, respectively
- Emerging markets: Deep Value and Relative Value themes were favored in May, as captured respectively by TTM EBITDA-to-Enterprise Value and Industry Relative TTM Dividend Yield

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Table 1

Global factor quantile return	. (3/12-33		US		Developed	lonon	
		US Large	Small	Developed	Pacific ex	Japan Standard	Emerging
-actor	Factor Group	Cap	Cap	Europe	Japan	Cap	Market
Book-to-Market	Tactor Group	5.71	5.19	4.72	3.56	2.59	3.40
Forward 12-M EPS-to-Enterprise	_					2.28	
Value .	- Deep Value	12.54	13.95	2.88	2.83	2.28	3.3
TTM EBITDA-to-Enterprise Value	- -	10.13	12.36	4.64	1.40	2.97	4.1
TTM Free Cash Flow-to-Enterprise Value		3.60	12.25	5.10	3.39	-1.20	1.0
Industry Relative Leading 4-QTRs EPS to Price	 Relative Value 	9.75	7.52	4.08	0.34	4.25	3.7
Industry Relative TTM Dividend Yield		3.85	1.49	5.27	-1.60	1.50	3.2
Fixed Assets Turnover Ratio	- Managament	2.64	4.94	3.38	-0.67	-4.31	-0.4
Inventory Turnover Ratio	[−] Management _− Quality	2.06	3.83	0.95	1.31	-4.34	1.1
Net Operating Asset Turnover		-0.22	4.05	2.80	2.25	-2.16	1.4
Change in Accruals to Assets		-2.91	-4.22	-0.92	-0.20	-0.65	-0.0
Change in TTM COGS vs. Inventory Level	- Earnings Quality	-2.11	-1.90	-1.01	-1.72	1.47	-0.1
Change in TTM Sales vs. Accounts Receivable		-0.04	-1.68	-0.50	1.28	-0.02	-0.0
Working Capital Accruals		1.51	5.14	2.66	-1.12	-0.18	0.5
1-yr Growth in TTM Free Cash Flow	_ Historical Growth	3.34	4.14	2.45	3.53	-2.01	0.0
Reinvestment Rate	Thistorical Growth	10.01	9.31	-0.06	-1.32	-3.72	-0.1
Average Monthly Trading Volume-to-Market Cap	_	0.57	-5.71	4.67	-1.50	1.51	0.8
60-Month Beta	- Limitite District	0.14	3.61	-3.05	3.01	-1.50	-0.9
Asset Quality Index	Liquidity, Risk &Size	4.57	6.28	1.62	0.83	0.82	-0.0
Operating Leverage	_	-3.89	-1.82	-1.10	-0.70	-0.26	0.
Natural Logarithm of Market Capitalization		-2.66	-4.65	-1.13	-4.88	-1.52	-0.5
2-Year Ahead EPS Growth	_	-4.11	-1.19	0.96	0.83	0.22	0.0
3-M Revision in FY2 EPS Forecasts	Earnings Momentum	4.72	4.38	-0.51	1.97	2.71	0.3
Real Earnings Surprise		1.50	0.50	1.89	2.10	3.80	0.6
24-Month Value at Risk	_	2.38	5.35	-0.80	-0.61	2.75	-0.2
5-day Industry Relative Return		-3.32	-0.91	2.54	-0.93	1.24	3.3
Industry-adjusted 12-month Relative Price Strength	Price Momentum	-1.15	-1.01	-7.14	-0.60	1.83	-0.
Rational Decay Alpha		4.94	6.89	-4.28	0.54	1.92	-4.0
Demand Supply Ratio	- Short Sentiment	1.74	8.67	-1.78	-0.82	1.22	-3.0
Implied Loan Rate	- Short Sentiment	3.00	4.41	2.41	0.55	-0.18	-1.6

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United States

US Large Cap

The US manufacturing upturn slowed in May, with the headline PMI figure easing to 57.0 from 59.2 in April, amid cooling demand, surging costs and material shortages. While stocks enjoyed a late-month bounce, investors' resolve will continue to be tested given fears of a recession resulting from the Federal Reserve's steps to fight inflation.

Deep Value measures took over nearly the totality of the list of top performing factors for US large caps in May (Table 2). Time Weighted Cash Yield (14.55%) was the top performer, extending its string of seven consecutive months of positive performance (Figure 1). On the contrary, several styles were represented on the laggard board for the month (Table 3), including Growth Duration (-12.72%), Shareholder Payout to Gross Profit (-11.55%) and 2-Year Ahead EPS Growth Percentage Change (-10.47%).

Table 2

Factor	Decile spread	Factor group
Time Weighted Cash Yield	14.55	Deep Value
Leading 12 Month EBITDA/ EV	13.86	Deep Value
Leading 12-Month Mean Earnings Yield	13.54	Deep Value
Leading 12-Month Median Earnings Yield	13.35	Deep Value
Time Weighted Earnings Yield	13.01	Deep Value
Predicted Dividend Yield	12.90	Deep Value
Time Weighted EBITDA/ EV	12.80	Deep Value
Edwards-Bell-Ohlson Value-to-Price	12.56	Deep Value
Forward 12-M EPS-to-Enterprise Value	12.54	Deep Value
TTM Cash Flow-to-Price	12.25	Deep Value
TTM Operating Income to Enterprise Value	11.87	Deep Value
TTM Sales-to-Price	11.82	Deep Value
Leading 12 Month Cash Yield	11.45	Deep Value
Unexpected Profitability	11.36	Management Quality
TTM EBITDA-to-Price	11.18	Deep Value

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Figure 1

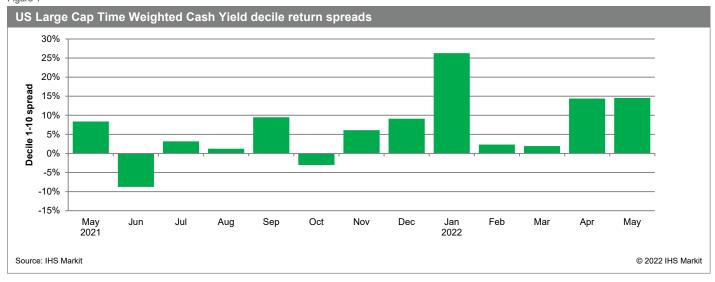


Table 3

Factor	Decile spread	Factor group	
Growth Duration	-12.72	Liquidity, Risk & Size	
Shareholder Payout to Gross Profit	-11.55	Management Quality	
Advertising Intensity	-10.55	Management Quality	
2-Year Ahead EPS Growth Percentage Change	-10.47	Earnings Momentum	
Accounting Accruals	-7.36	Earnings Quality	
Std Dev of FY1 EPS Estimates-to-Price	-7.03	Earnings Momentum	
Std Dev of FY2 EPS Estimates-to-Price	-6.42	Earnings Momentum	
Flow Ratio	-5.96	Liquidity, Risk & Size	
Earnings Shortfall	-5.78	Earnings Quality	
Net Debt to EBITDA	-5.61	Management Quality	

US Small Cap

As with large caps, Deep Value measures were prominent among the top performing factors for small caps in May (Table 4), led by Forward 12-M EPS-to-Enterprise Value (13.95%). However, Management Quality measures made more of a presence as exemplified by Forward Return on Equity (13.11%), which has been a successful signal over the past year with positive spreads in all but three months (Figure 2). Conversely, factors which struggled for the month (Table 5) include Ohlson Bankruptcy Score (-8.02%) and 14 Day Relative Strength Index (-6.73%).

Table 4

Table 4		
US Small Cap top decile return spread factor po	erformance, May 2022	
Factor	Decile spread	Factor group
Forward 12-M EPS-to-Enterprise Value	13.95	Deep Value
Leading 12-Month Mean Earnings Yield	13.90	Deep Value
Leading 12-Month Median Earnings Yield	13.49	Deep Value
Forward Return on Equity	13.11	Management Quality
TTM Operating Income to Enterprise Value	13.02	Deep Value
Time Weighted Earnings Yield	12.95	Deep Value
TTM EBITDA-to-Enterprise Value	12.36	Deep Value
Current Earnings Yield	12.28	Deep Value
TTM Free Cash Flow-to-Enterprise Value	12.25	Deep Value
Operating Profit Margin	11.68	Management Quality
TTM Cash Flow-to-Price	11.66	Deep Value
Forward Free Cash Flow-to-Price	11.65	Deep Value
Revenue per Employee	11.64	Management Quality
Return on Assets	11.38	Management Quality
Return on Equity	11.29	Management Quality

Figure 2

Source: IHS Markit

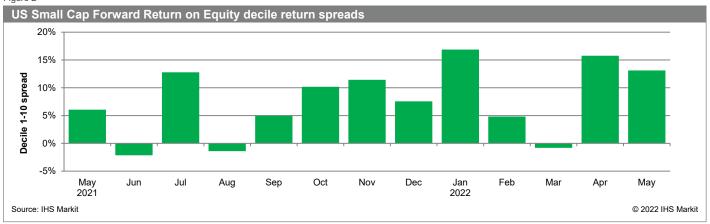


Table 5

-8.07 -8.03 -8.02 -7.77	Deep Value Liquidity, Risk & Size Liquidity, Risk & Size
-8.02	Liquidity, Risk & Size
	1 3,
-7 77	
	Management Quality
-6.80	Deep Value
-6.73	Price Momentum
-6.61	Earnings Quality
-6.48	Management Quality
-6.44	Earnings Quality
-5.71	Liquidity, Risk & Size

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Europe

Manufacturing growth in the eurozone continued to weaken in May, with the PMI slipping to an 18-month low of 54.6, from 55.5 in April, amid supply shortages, elevated inflationary pressures and waning demand. The Netherlands, Austria and Ireland posted weaker rates of growth, while Germany and Spain were the only monitored nations to record stronger improvement. In equity markets, stocks recovered early month losses, though investors are still facing high inflation readings and hawkish positioning from the European Central Bank.

Several variants of value were included among the most highly favored factors in Developed Europe in May (Table 6), including long-term relative value and price reversal metrics alongside Deep Value. Representative measures include 5-yr Relative TTM Sales-to-Price (8.19%), 60-Month Alpha (7.75%) and Time Weighted Cash Yield (6.96%), respectively. On the other hand, the weakest performers for the month (Table 7) were dominated by momentum measures including Industry-adjusted 12-month Relative Price Strength (-7.14%) and Std Dev of FY1 EPS Estimates-to-Price (-6.68%), with the former posting its weakest performance over the past year (Figure 3).

Table 6

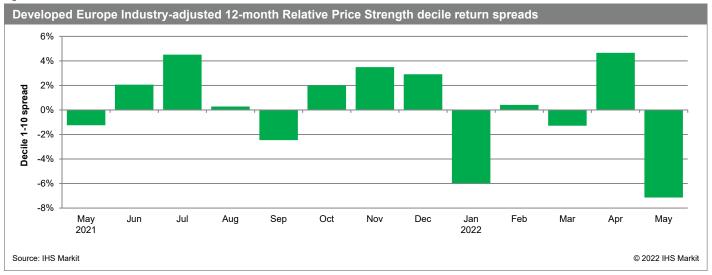
Developed Europe top decile return spread factor performance, May 2022				
Factor	Decile spread	Factor group		
5-yr Relative TTM Sales-to-Price	8.19	Relative Value		
60-Month Alpha	7.75	Price Momentum		
36-Month Active Return with 1-Month Lag	7.26	Price Momentum		
Time Weighted Cash Yield	6.96	Deep Value		
5-yr Relative Book-to-Market	6.27	Relative Value		
Leading 12 Month Cash Yield	6.23	Deep Value		
TTM EBITDA-to-Price	6.19	Deep Value		
Time Weighted Book Yield	6.09	Deep Value		
TTM Sales-to-Price	5.96	Deep Value		
Industry Relative Book-to-Market	5.86	Relative Value		
Leading 12 Month EBITDA/ EV	5.81	Deep Value		
TTM Sales-to-Enterprise Value	5.78	Deep Value		
Time Weighted EBITDA/ EV	5.77	Deep Value		
Natural Logarithm of Total Assets (USD)	5.71	Liquidity, Risk & Size		
Natural Logarithm of TTM Sales (USD)	5.61	Liquidity, Risk & Size		

Source: IHS Markit © 2022 IHS Markit

Table 7

Factor	Decile spread	Factor group	
Industry-adjusted 12-month Relative Price Strength	-7.14	Price Momentum	
12-Month Active Return with 1-month Lag	-6.69	Price Momentum	
Std Dev of FY1 EPS Estimates-to-Price	-6.68	Earnings Momentum	
Slope of 66 Week Price Trend Line	-6.18	Price Momentum	
9-Month Active Return with 1-Month Lag	-5.71	Price Momentum	
Std Dev of FY2 EPS Estimates-to-Price	-5.69	Earnings Momentum	
30-75 Week Stock Price Ratio	-5.41	Price Momentum	
1-Year Price Momentum Indicator	-5.35	Price Momentum	
Slope of 52 Week Price Trend Line	-5.19	Price Momentum	
Short Interest	-5.16	Short Sentiment	

Figure 3



Asia-Pacific

Manufacturing operating conditions in the two largest Asian economies of China and Japan remained on opposite sides of the cutoff between contraction and expansion in May. In China, the manufacturing PMI rose from its 26-month low of 46.0 in April to 48.1 in May, on softer falls in production and new orders. In Japan, the headline PMI dipped slightly to 53.3 in May, from 53.5 in April, on softer expansions in production and incoming new business. Asian shares removed some of their year-to-date losses as China eased shutdowns to curb Covid flareups.

The top performing factors in developed Pacific markets outside Japan took on a different orientation compared with our other coverage universes in May (Table 8), including Natural Logarithm of Total Assets (5.81%) and 1-yr Change in Total Assets (4.24%). Averaged Last 6-M EPS Revisions for FY1 (5.07%) was also a strong signal, with its seventh consecutive month of positive performance (Figure 4). Factors which trailed for the month (Table 9) include Stock Illiquidity (-5.40%) and Net Cash to Equity (-3.62%).

In Japan, while Deep Value measures such as Time Weighted Cash Yield (7.87%) were among the top performers in May (Table 10), Price Momentum metrics such as 15/36 Week Stock Price Ratio (5.07%) were also rewarded. Looking at the distribution of decile returns across both factors (Figure 5), we find similar behavior in underperformance concentrated at the furthest tail, with average decile 10 returns of -3.92% and -3.09%, respectively. Factors which posted the weakest performance for the month (Table 11) include Attention Span Ratio (-6.34%), 3-yr Compound Annual Sales Growth (-5.57%) and 5-yr Relative TTM Dividend Yield (-5.35%).

Table 8

Factor	Decile spread	Factor group
Natural Logarithm of Total Assets	5.81	Liquidity, Risk & Size
Market Cap per Analyst	5.19	Liquidity, Risk & Size
Averaged Last 6-M EPS Revisions for FY1	5.07	Earnings Momentum
Averaged Last 6-M EPS Revisions for FY2	4.51	Earnings Momentum
Time Weighted Earnings Revision	4.50	Earnings Momentum
Natural Logarithm of TTM Sales	4.41	Liquidity, Risk & Size
1-yr Change in Total Assets	4.24	Historical Growth
Product of Beta and Sigma	3.82	Liquidity, Risk & Size
SG&A Expenses-to-Sales	3.82	Management Quality
1-yr Change in Price-adj TTM EPS	3.79	Historical Growth
Unexpected Profitability	3.71	Management Quality
3-Month Active Return	3.62	Price Momentum
Book-to-Market	3.56	Deep Value
1-yr Growth in TTM Free Cash Flow	3.53	Historical Growth
Slope of 66 Week Price Trend Line	3.40	Price Momentum

Figure 4

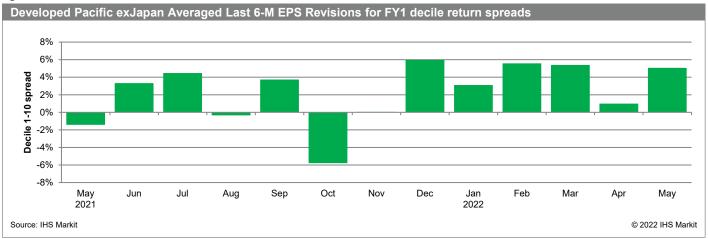


Table 9

able 9			
Developed Pacific exJapan bottom decile return spread factor performance, May 2022			
Factor	Decile spread	Factor group	
Stock Illiquidity	-5.40	Liquidity, Risk & Size	
Natural Logarithm of Market Capitalization	-4.88	Liquidity, Risk & Size	
60-Month Trading Volume Trend	-3.65	Liquidity, Risk & Size	
Net Cash to Equity	-3.62	Liquidity, Risk & Size	
Net Fixed Assets to Long-term Debt	-3.05	Liquidity, Risk & Size	
Housing Starts Sensitivity	-2.75	Macro	
Ohlson Bankruptcy Score	-2.73	Liquidity, Risk & Size	
60-Month Alpha	-2.72	Price Momentum	
Natural Logarithm of Closing Price	-2.62	Liquidity, Risk & Size	
3-yr Compound Annual Operating Profit Margin	-2.52	Historical Growth	

Table 10

Source: IHS Markit

Japan Standard Cap top decile return spread factor performance, May 2022

Japan Standard Cap top decile return spread factor performance, May 2022			
Factor	Decile spread	Factor group	
Time Weighted Cash Yield	7.87	Deep Value	
Leading 12 Month Cash Yield	7.59	Deep Value	
Time Weighted Earnings Yield	5.81	Deep Value	
Inflation Sensitivity	5.68	Macro	
TTM Cash Flow-to-Price	5.64	Deep Value	
Current Liabilities-to-Price	5.38	Liquidity, Risk & Size	
Edwards-Bell-Ohlson Value-to-Price	5.34	Deep Value	
TTM EBITDA-to-Price	5.15	Deep Value	
15/36 Week Stock Price Ratio	5.07	Price Momentum	
6-Month Nominal Change in 36-Month Alpha	5.06	Price Momentum	
Price-to-Book Return-on-Equity Combination	4.89	Deep Value	
1 Year Change in Gross Profit to Assets	4.63	Management Quality	
5-yr Sales Growth	4.59	Historical Growth	
Altman Z Score	4.45	Liquidity, Risk & Size	
Leading 12-Month Median Earnings Yield	4.43	Deep Value	

Source: IHS Markit

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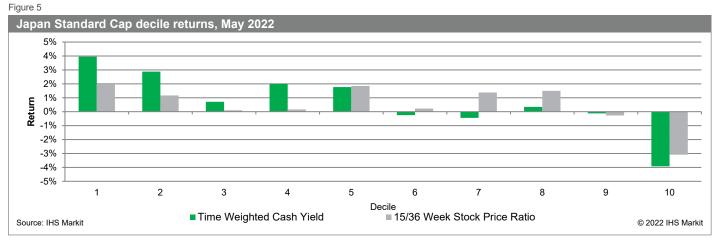


Table 11

Factor	Decile spread	Factor group
Attention Span Ratio	-6.34	Management Quality
3-yr Compound Annual Sales Growth	-5.57	Historical Growth
5-yr Relative TTM Dividend Yield	-5.35	Relative Value
Cash Cycle	-5.19	Management Quality
5-Year Dividend Growth Rate	-4.61	Historical Growth
Operating Liability Leverage	-4.54	Management Quality
Sustainable Growth Rate	-4.38	Historical Growth
Inventory Turnover Ratio	-4.34	Management Quality
Fixed Assets Turnover Ratio	-4.31	Management Quality
TTM Capital Expenditures-to-Price	-4.21	Deep Value

Emerging Markets

Lastly, we review top (Table 12) and bottom (Table 13) performing factors in emerging markets in May. As with most other coverage universes, the value trade was effective last month, as demonstrated by TTM Operating Income to Enterprise Value (4.63%) which has enjoyed a successful year of outperformance in all but two months, capped by its highest spread in May (Figure 6). Price Momentum measures sat at the furthest extreme of underperforming factors, namely Rational Decay Alpha (-4.01%) and Second Preceding 6-month Return (-3.33%).

Table 12

Emerging Markets top decile return spread factor	performance, May 2022		
Factor	Decile spread	Factor group	
TTM Operating Income to Enterprise Value	4.36	Deep Value	
Time Weighted Earnings Yield	4.23	Deep Value	
TTM Growth Flow-to-Price	4.23	Deep Value	
Edwards-Bell-Ohlson Value-to-Price	4.23	Deep Value	
Cash to Enterprise Value	4.21	Deep Value	
1-Month Active Return	4.19	Price Momentum	
TTM Cash Flow-to-Price	4.17	Deep Value	
TTM EBITDA-to-Enterprise Value	4.12	Deep Value	
5-yr Relative Leading 12-Month Earnings Yield	4.05	Relative Value	
Cash-to-Price	3.97	Deep Value	
6-Month Nominal Change in 12-Month Alpha	3.96	Price Momentum	
Cyclically Adjusted Earnings-to-Price	3.95	Deep Value	
Leading 12-Month Median Earnings Yield	3.90	Deep Value	
5-yr Relative TTM Sales-to-Price	3.88	Relative Value	
Industry Relative Book-to-Market	3.87	Relative Value	
Source: IHS Markit			© 2022 IHS Markit

Figure 6

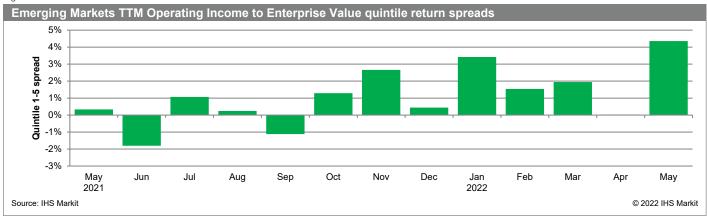


Table 13

Factor	Decile spread	Factor group
Rational Decay Alpha	-4.01	Price Momentum
Second Preceding 6-month Return	-3.33	Price Momentum
Dividend Coverage Ratio	-3.17	Liquidity, Risk & Size
24-Month Active Return with 1-Month Lag	-2.97	Price Momentum
lousing Starts Sensitivity	-2.89	Macro
TM Capital Expenditures-to-Price	-2.85	Deep Value
lope of 66 Week Price Trend Line	-2.85	Price Momentum
td Dev of FY1 EPS Estimates-to-Price	-2.41	Earnings Momentum
verage Payable Period	-2.40	Management Quality
ash Earnings Return On Equity	-2.39	Management Quality

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